

REMARKS

Applicants have received and reviewed the Office Action dated October 13, 2010. Applicants have filed a Request for Continued Examination ("RCE") herewith. This Response is timely filed as the time period for this Response extends up to and includes January 13, 2011.

Applicants have canceled claims 22, 23 and 24 without prejudice. Applicants have amended claims 1, 3, 6, 8, 11 and 25. Applicants have added new claims 26-27. Claims 1, 2, 3, 6, 8, 11 and 25-27 are pending following entry of this Response. Applicants have not introduced any new matter. The Examiner will find support for the both the new claims and amendments throughout the specification, for example:

Claim	Support
1	At least at paragraphs [0035], [0036], [0062], [0064], [0065] and [0072].
3	At least at paragraphs [0044] and [0045]
6	At least at paragraphs [0035], [0036], [0062], [0064], [0065] and [0072].
8	At least at paragraphs [0044] and [0045]
11	At least at previous claims 6 and 11.
25	At least at previous claims 23 and 25.
26	At least paragraph [0040].

27	At least paragraph [0040].
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35 U.S.C. § 103(a)

At paragraph 1 of the Office Action, claims 1 and 22 were rejected under 35 U.S.C. § 103(a) over Shinichi et al. (Japanese Kokai JP8323845) in view of Farrell (US 4,038,006); claims 2 and 24 were rejected under 35 U.S.C. § 103(a) over Shinichi et al. and Farrell as applied to claims 1 and 22 above, and further in view of Hagano et al. (US 2002/0125254) or Maruniak et al. (US 3,817,390); and claim 3 was rejected under 35 U.S.C. § 103(a) over Shinichi et al. and Farrell as applied to claim 1 above, and further in view of Fischer et al. (US 4,123,217). Applicants respectfully traverse in view of the arguments and amendments presented herewith and discussed below.

At paragraph 2 of the Office Action, claims 1, 2, 6, 11 and 22-25 were rejected under 35 U.S.C. § 103(a) over Shinichi et al. in view of Uhlig (US 3,740,181), Hagano et al., Farrell, Mojonnier et al. (US 3,366,290), Scott et al. (US 2004/0134171), Cox (US 4,291,915) and optionally Maruniak et al., Wallace (US 2,936,920) or Reil (US 5,191,988); and claims 3 and 8 were rejected under 35 U.S.C. § 103(a) over Shinichi et al. in view of Uhlig, Hagano et al., Farrell, Mojonnier et al., Scott et al., Cox, Maruniak et al., Wallace and Reil as applied to claims 1 and 6 above, and further in view of Fischer et al. (US 4,123,217). Applicants respectfully traverse in view of the arguments and amendments presented herewith and discussed below.

As an initial matter, Applicants have canceled claims 22, 23 and 24, and amended claims 1, 3, 6, 8, 11 and 25 solely to further prosecution and without acquiescing to the various rejections. After entry of this Response, claims 1 and 6 are the only independent claims. All other claims incorporate the limitations of the claims from which they depend.

Newly Recited Limitations

Amended claim 1, recites, in part, three distinct blow molds, including “a first temperature controlled preform blow mold,” “a second temperature controlled preform blow mold” and “a third temperature controlled bottle-shaped blow mold.” Amended claim 1 further recites that

the first blow mold is designed to “form a first hollow PET container with a volume between 60-80% of a completed PET container,” the second blow mold is designed to “form a second PET container with a volume between 70-90% of the completed PET container” and the third blow mold is designed to “for blowing air into the second PET container to form the completed PET container.”

In addition, amended claim 3 requires “a mold punch apparatus with a heater installed on an end, the heater capable of maintaining a temperature between 260 to 300 degrees Celsius to form a blunt, non-crystallized cut-off portion”

Applicants submit the invention of the present claims is not obvious over the prior art alone or in combination. The prior art does not disclose and/or render obvious (alone or in combination) the three distinct temperature controlled blow molds as presently recited. The prior art also does not disclose or render obvious (alone or in combination) a mold punch apparatus with a heater installed on an end, the heater capable of maintaining a temperature between 260 to 300 degrees Celsius to form a blunt, non-crystallized cut-off portion.

For example, the Office Action relies on Shinichi et al. in view of Farrell and Fischer et al. for the alleged proposition that claims 1, 3 and 22 are obvious. However, neither Shinichi et al., Farrell nor Fischer et al. disclose or render obvious at least the following features: (1) three distinct blow molds; (2) where each blow mold is designed to form a PET container of 60-80% completed volume, 70-90% completed volume, and 100% completed volume, respectively; and (3) a mold punch apparatus and with a heater installed on an end, the heater capable of maintaining a temperature between 260 to 300 degrees Celsius to form a blunt, non-crystallized cut-off portion. Shinichi et al. appears to disclose only a single blow mold (Figures 12 and 13) and fails to mention or suggest a heated mold punch apparatus. Farrell discloses two blow molds (abstract) and fails to mention or suggest a heated mold punch apparatus. Fischer et al. discloses a ram for performing a punch out operation. (Col. 5:1-6.) Notably, the “ram” of Fischer et al. is designed to sheer an already heat bonded handle region and does not account for the temperature sensitivities of PET, the unbounded nature of the present apparatus during use of the mold punch, nor the appropriate temperature to form a

blunt, non-crystallized cut off portion as presently claimed. Like Farrell, Fischer et al. fails to disclose three distinct blow molds. Applicants submit the prior art fails to disclose or render obvious the invention as presently claimed for at least the above reasons. Applicants further submit the remaining prior art fails to overcome the deficiencies of Shinichi et al., Farrell and Fischer et al.

Like amended claim 1, amended claim 6 recites, in part, three blowing operations in three distinct blow molds, including “a first blowing operation in a first temperature controlled preform blow mold,” “a second blowing operation in a second temperature controlled preform blow mold with a handle forming apparatus” and “a third blowing operation in a third temperature controlled preform blow mold having a handle forming portion of which the opposing two parts are configured to meet each other when they penetrate the body of the fifth PET container through the cut-off aperture of the handle section to blow.” Amended claim 6 further recites a first blowing operation to “form a first hollow PET container with a volume between 60-80% of a completed PET container,” a second blowing operation to “form a second PET container with a volume between 70-90% of the completed PET container” and a third blowing operation to blow “compressed air into the fifth PET container in order to form a completed PET container having the bonded cut-off portion of the handle section embedded into the completed PET container.”

In addition, the method of amended claim 8 requires the use of “a mold punch apparatus with a heater installed on an end, the heater capable of maintaining a temperature between 260 to 300 degrees Celsius to form a blunt, non-crystallized cut-off portion.”

Applicants submit the invention of present claims 6 and 8 are not obvious in view of the prior art – either alone or in combination. The prior art does not disclose or render obvious the three distinct temperature controlled blowing steps as presently recited, and does not disclose or render obvious using a mold punch apparatus with a heater installed on an end, the heater capable of maintaining a temperature between 260 to 300 degrees Celsius to form a blunt, non-crystallized cut-off portion.

Importantly, the formation of the blunt, non-crystallized cut-off portion by the mold punch is significant because it serves to enhance bonding efficiency between PET during the subsequent bonding process. This enhancement is a characteristic common to PET and not considered or contemplated by references disclosing non-PET plastic applications.

Previously Recited Limitations

Both independent claims 1 and 6 recite a handle forming portion of which the opposing two parts are configured to meet each other when they penetrate the body of the PET container through the cut-off aperture of the handle section for embedding a bonded cut-off portion remaining in the handle section into the PET container. The Office Action relies on Scott et al., Cox, Wallace and Reil for the alleged obviousness of the recited limitation. Applicants respectfully assert that none of the cited references -- Scott et al., Cox, Wallace or Reil (alone or in combination) -- disclose or render obvious the recited apparatus or method of embedding a bonded cut-off portion remaining in the handle section into the PET container.

Scott et al. discloses improvements in air cleaners and has no relationship to an arrangement or method of manufacturing PET containers. Indeed, Scott et al.'s summary of invention explains "[t]he techniques are particularly developed for use with air cleaners for cleaning engine air intake for an internal combustion engine." (paragraph [0005].) Further, the disclosure by Scott et al. at paragraph [0254] has no relationship to the arrangement of claim 1 or method of claim 6.

Like Scott et al., Cox has no relationship to an arrangement or method of manufacturing PET containers. Cox's abstract discloses a combined suitcase and safety seat so that a child can comfortably and safely sit in an automobile. Also like Scott et al., the disclosure at column 2, lines 23-25 of Cox has no relationship to the arrangement of claim 1 or method of claim 6.

Wallace discloses the modification of moldings on the base of bottles to help with the stability of the bottle when placed on a flat surface. (see, col. 1:24-21.) Thus, Wallace is concerned with bottle stability and fails to disclose any information relevant to a "handle forming portion of which the opposing two parts are configured to meet each other when they penetrate the

body of the PET container through the cut-off aperture of the handle section for embedding a bonded cut-off portion remaining in the handle section into the PET container.”

Reil discloses a container designed for better packing and stacking. Applicants do not presently understand the relevance of Reil to the present invention. (see, col. 1:25-29.) More specifically, Reil at figure 8 discloses groove like depressions that enable better packing and stacking of the disclosed containers. (see col. 6:28-34.) Thus, Reil is concerned with utilizing grooves to improve the stacking and packing capability of the disclosed containers. Reil fails to disclose information relevant to a “handle forming portion of which the opposing two parts are configured to meet each other when they penetrate the body of the PET container through the cut-off aperture of the handle section for embedding a bonded cut-off portion remaining in the handle section into the PET container.”

Applicants respectfully submit that neither Scott et al., Cox, Wallace and Reil—alone or in combination—disclose or render obvious the recited apparatus or method having a handle forming portion of which the opposing two parts are configured to meet each other when they penetrate the body of the PET container through the cut-off aperture of the handle in order to form a PET container having the bonded cut-off portion of the handle section embedded into the PET container.

Applicants further incorporate their arguments of the previous Amendments and Responses filed on July 28, 2009, January 4, 2010, and July 27, 2010. Namely, that the Office Action fails to establish a *prima facie* case of obviousness because it fails to establish why a person of ordinary skill in the art would have been motivated to combine the large number of references cited in the Office Action, where the references span various technology fields and most have no relation to PET or appreciate the inherent attributes of PET. Previous Office Actions alleged that the claims fail to reflect the properties of PET that Applicants argue. As now presented, independent claims 1 and 6 clearly recite both PET and limitations specific to PET. For example, claims 1 and 6 recite an arrangement and method of manufacturing by continuous injection blow mold a PET container using three temperature controlled blow molds. Claims 3 and 8 recite an arrangement or a method of using a mold punch apparatus having a heater at a

temperature between 260 to 300 degrees Celsius on an end, in order to form a PET container with a blunt, non-crystallized cut-off portion. The formation of a blunt, non-crystallized cut-off portion serves to enhance bonding efficiency between PET during the subsequent bonding process.

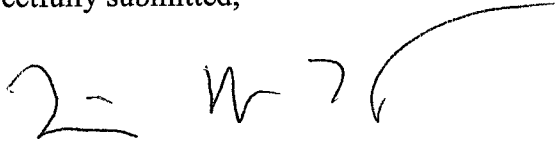
In view of the foregoing, Applicants respectfully request the rejections be withdrawn in view of the amendments and arguments presented herewith.

Summary

In view of the above amendments and remarks, Applicant respectfully requests a Notice of Allowance. Applicants do not otherwise concede the correctness of the rejections, and reserve the right to make additional arguments as may be necessary. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.

Respectfully submitted,

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Date



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